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PATENT ABSTRACTS OF JAPAN

(11) Publication number: **57-189559**

(43)Date of publication of **20.11.1982**

application:

(51)Int.Cl. **H02K 41/03**

(21)Application 56-071490 (71) TAKAHASHI YOSHITERU

number: Applicant:

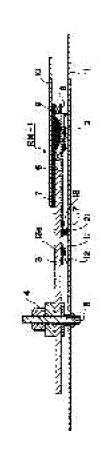
(22)Date of filing: 14.05.1981 (72)Inventor: OGAWA MASATAKA

(54) CIRCULAR-ARC LINEAR MOTOR

(57) Abstract:

PURPOSE: To obtain a flat and small-sized motor capable of reciprocating by planarly confronting a base plate in which a plurality of armature coils are arranged and a base plate having a field magnet magnetized with a plurality of poles in such a manner that one of the plates is rotatable, thereby detecting a position with a fore-tensioner.

CONSTITUTION: Two or more armature coils 9 formed by winding a conductor in many turns are arranged on the surface of a base plate 3 in a circular-arc manner, circular-arc-shaped field magnet 2 alternately magnetized with many N- poles and S-poles is secured on the surface of the plate 1, and both the plates 3, 1 are arranged to confront between the coils 9 and the magnet 2 in such a manner that one of the plates is rotatable. A light emitting element 17 is mounted on the plate of the turning side, a fore-tensioner 21 is mounted on the plate



of the stationary side, and a position detection signal is obtained in noncontact manner from the output of the tensioner 21. In this manner, a flat motor which can reciprocate within the prescribed angle can be obtained.